Claims

- 1. A well treatment fluid composition, comprising a carrier fluid, a viscosifying agent, an amphoteric surfactant, and proppant, wherein the surfactant comprises an alkylaminocarboxylic acid or carboxylate.
- 5 2. The composition of claim 1, wherein the composition is a foam that comprises a gas selected from the group consisting of nitrogen, air, and carbon dioxide.
 - 3. The composition of claim 1, wherein the surfactant has the formula

 R-NH₂-(CH₂)_n-C(O)OX wherein R is a saturated or unsaturated alkyl group having from 6-20 carbon atoms, n is from 2-6, and X is hydrogen or a salt forming cation.
- 10 4. The composition of claim 3, wherein n is from 2-4.

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- 5. The composition of claim 3, wherein R is a saturated or unsaturated alkyl group having from 10-14 carbon atoms.
- 6. The composition of claim 1, wherein the surfactant comprises an alkylaminopropionic acid or propionate.
- 15 7. The composition of claim 1, wherein the surfactant is a coco-aminopropionate.
 - 8. The composition of claim 1, wherein the viscosifying agent is a solvatable, crosslinkable polymer selected from the group consisting of guar, hydroxypropyl guar, carboxymethyl guar, carboxymethylhydroxypropyl guar, hydroxyethyl cellulose, carboxymethylhydroxyethyl cellulose, hydroxypropyl cellulose, xanthan, and mixtures thereof.
 - 9. The composition of claim 8, further comprising a crosslinking agent.
 - 10. The composition of claim 8, further comprising a gel breaker for the viscosifying agent.
 - 11. The composition of claim 10, further comprising a breaker aid.
- 25 12. The composition of claim 1, further comprising an additive that decreases the frictional pressure involved in pumping the fluid composition through well tubing.

- 13. The composition of claim 12, wherein the additive comprises at least one polyacrylamide.
- 14. A well treatment fluid composition, comprising a carrier fluid; a viscosifying agent selected from the group consisting of guar, hydroxypropyl guar, carboxymethyl guar, carboxymethylhydroxypropyl guar, hydroxyethyl cellulose, carboxymethylhydroxyethyl cellulose, hydroxypropyl cellulose, xanthan, and mixtures thereof; a coco-aminopropionate surfactant; and proppant.
- 15. A method of hydraulically fracturing a subterranean coal bed, comprising the step of injecting a well treatment fluid composition via a wellbore into a subterranean coal bed at a flow rate and pressure sufficient to hydraulically fracture the formation, wherein the well treatment fluid composition comprises a carrier fluid and an amphoteric surfactant.
 - 16. The method of claim 15, wherein the well treatment fluid further comprises proppant.
- 17. The method of claim 15, wherein the well treatment fluid further comprises a viscosifying agent.
 - 18. The method of claim 15, wherein the composition is a foam that comprises a gas selected from the group consisting of nitrogen, air, and carbon dioxide.
 - 19. The method of claim 15, further comprising injecting carbon dioxide via the wellbore into the subterranean bed prior to injecting the well treatment fluid composition.
- 20 20. The method of claim 15, wherein the surfactant comprises an alkyl-aminocarboxylic acid or carboxylate.
 - 21. The method of claim 15, wherein the surfactant has the formula RNH₂(CH₂)_nC(O)OX wherein R is a saturated or unsaturated alkyl group having from 6-20 carbon atoms, n is from 2-6, and X is hydrogen or a salt forming cation.
- 25 22. The method of claim 21, wherein n is from 2-4.

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23. The method of claim 21, wherein R is a saturated or unsaturated alkyl group having from 10-14 carbon atoms.

- 24. The method of claim 15, wherein the surfactant comprises an alkyl-aminopropionic acid or propionate.
- 25. The method of claim 15, wherein the surfactant is a coco-aminopropionate.
- 26. The method of claim 17, wherein the viscosifying agent is a solvatable, crosslinkable polymer selected from the group consisting of guar, hydroxypropyl guar, carboxymethyl guar, carboxymethylhydroxypropyl guar, hydroxyethyl cellulose, carboxymethylhydroxyethyl cellulose, hydroxypropyl cellulose, xanthan, and mixtures thereof.
 - 27. The method of claim 26, further comprising a crosslinking agent.
- 10 28. The method of claim 27, further comprising a gel breaker for the viscosifying agent.
 - 29. The method of claim 28, further comprising a breaker aid.
 - 30. The method of claim 15, further comprising an additive that decreases the frictional pressure involved in pumping the fluid composition through well tubing.
 - 31. The method of claim 30, wherein the additive comprises at least one polyacrylamide.

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